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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/660,188

09/11/2003

David E. Mayhew

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35690

7590

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MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.

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EXAMINER

FOUD, HICHAM B

ART UNIT

PAPER NUMBER

2467

NOTIFICATION DATE

DELIVERY MODE

05/04/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/660,188	<b>Applicant(s)</b> MAYHEW ET AL.	
	<b>Examiner</b> HICHAM B. FOUAD	<b>Art Unit</b> 2467	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03/29/2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,13,15,17-22,24,25 and 27-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,13,15,17-22,24,25 and 27-31 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/29/2010 has been entered.

### ***Response to Amendment***

2. The amendment filed on 03-29-2010 has been entered and considered.

Claims 1, 2, 4, 13, 15, 17-22, 24-25 and 27-31 are pending in this application.

Claims 3, 5-12, 14, 16, 23 and 26 are canceled.

Claims 29-31 are newly added.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 13, 15, 17-22, 24-25 and 27-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Brocco et al (US 6,996,658).

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4. The applied reference has a common assignee StarGen Technologies, Inc., and common inventors: Brocco, Comins and Mayhew with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

5. For claim 1, Brocco et al discloses an apparatus, comprising: a switch having a plurality of ports (see Fig.3A and at least col.11 lines 48-55; switch with plurality of ports), wherein the switch is configured to receive a packet on a first of the plurality of ports (see at least col.12 lines 32-35; input port), the packet including header data including path routing information (see at least Figs. 5B and/or 5C and col.10 lines 56-59; Path field), usable to route the packet from an origin node to an endpoint node within a network (see at least col.10 lines 56-64; path-routed frame from origin to terminus), and wherein the path routing information includes a first turn value and a bit count value (see at least col.10 lines 64-66; turn field and turn count field); wherein the switch is configured, based on an identifier for the first port, the first turn value, and the number of the plurality of ports, to transmit the packet on a second of the plurality of ports (see at least col.11 lines 1-13; the use of turn value, the input port identifier and the number of plurality of ports to identify the output port since the output port is identified by the turn value that tells how many ports to skip from the number of plurality of ports starting clockwise from the input port), wherein the switch is configured to select

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the first turn value using the bit count value (see at least col.13 lines 4-6; the switch uses the turn count to index the turn list to get the indexed turn list entry (the claimed first turn value)); wherein the path routing information is translatable by the endpoint node for the packet to determine reverse path routing information that is usable to route one or more packets back to the origin node from the endpoint node (see at least col.11 lines 28-36; the path specification field provides the device to route back packets to the origin from the terminus "reverse path").

For claim 2, Brocco et al discloses a system comprising: a switch having a plurality of ports including a first port and a second port (see Fig.3A and at least col.11 lines 48-55; switch with plurality of ports), wherein the switch is configured to receive a packet on the first port (see at least col.12 lines 32-35; input port), wherein the packet includes header data comprising path routing information (see at least Figs. 5B and/or 5C and col.10 lines 56-59; Path field) that is usable to route the packet from an origin node to an endpoint node within a network (see at least col.10 lines 56-64; path-routed frame from origin to terminus), and wherein the path routing information includes a turn pool comprising a plurality of turn values (see at least col.10 lines 66-67; the turn list); wherein the switch is configured to select, using a received bit count value, one of the plurality of turn values (see at least col.13 lines 4-6; the switch uses the turn count to index the turn list to get the indexed turn list entry (the claimed turn value)), and wherein the switch is further configured, based on the selected turn value, an identifier for the first port, and the number of the plurality of ports, to select the second port on which to transmit the packet (see at least col.11 lines 1-13; the use of turn value, the input port

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identifier and the number of plurality of ports to identify the output port since the output port is identified by the turn value that tells how many ports to skip from the number of plurality of ports starting clockwise from the input port); wherein the path routing information is translatable by the endpoint node for the packet to calculate reverse path routing information that is usable to route one or more packets back to the origin node from the endpoint node (see at least col.11 lines 28-36; the path specification field provides the device to route back packets to the origin from the terminus "reverse path").

For claim 13, Brocco et al discloses a system wherein the header data further comprises the received bit count value (see at least Figs 5B and 5C; turn count).

For claim 15, Brocco et al discloses a switch, comprising: first means for receiving a packet on a first port of a plurality of ports of the switch (see at least col.12 lines 32-35; input port), the packet comprising path routing information (see at least Figs. 5B and/or 5C and col.10 lines 56-59; Path field), usable to route the packet from an origin node to an endpoint node (see at least col.10 lines 56-64; path-routed frame from origin to terminus), and wherein the path routing information comprises a turn pool (see at least col.10 lines 66-67; the turn list), comprising a plurality of turn values (see at least col.10 lines 66-67; the turn list comprises turn values "Fig.5B"); second means for selecting one of the plurality of turn values in the turn pool, wherein said selecting uses a received bit count value (see at least col.13 lines 4-6; the switch uses the turn count to index the turn list "claimed turn pool" to get the indexed turn list entry (the claimed turn value)); third means for using the selected turn value, an identifier of the first port, and

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the number of the plurality of ports to select a second port of the plurality of ports on which to transmit the packet (see at least col.11 lines 1-13; the use of turn value, the input port identifier and the number of plurality of ports to identify the output port since the output port is identified by the turn value that tells how many ports to skip from the number of plurality of ports starting clockwise from the input port); and fourth means for transmitting the packet on the second port (see col.11 line 6; transmitting the frame); wherein the path routing information is translatable by the endpoint node for the packet to determine reverse path routing information that is usable to route one or more packets back to the origin node from the endpoint node (see at least col.11 lines 28-36; the path specification field provides the device to route back packets to the origin from the terminus "reverse path").

For claim 17, Brocco et al discloses a switch, further comprising: fifth means for modifying the path routing information prior to transmitting the packet, wherein the path routing information comprises the bit count value (see at least col.12 lines 1-4 and/or col.13 lines 6-10; the incrementing of the turn count which is located in the header "Fig.5B").

For claim 18, Brocco et al discloses a method, comprising: receiving, at a switch within a network, an encapsulated packet (see at least col.12 lines 32-35; input port and the packet encapsulated with a header "Fig.5B"), wherein the encapsulated packet includes path routing information that includes a plurality of turn values (see at least Figs. 5B and/or 5C and col.10 lines 56-67; Path field that contains a turn list that comprises of plurality of turn values), and wherein the encapsulated packet is received

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at first of a plurality of ports of the switch (see at least col.12 lines 32-35; input port; the switch selecting one of the plurality of turn values using a bit count value included in the path routing information (see at least col.13 lines 4-6 and Figs. 5B and/or 5C; the switch uses the turn count to index the turn list "claimed turn pool" to get the indexed turn list entry (the claimed turn value)); the switch determining a second port of the plurality of ports using the selected turn value, an identifier for the first port, and the number of the plurality of ports (see at least col.11 lines 1-13; the use of turn value, the input port identifier and the number of plurality of ports to identify the output port since the output port is identified by the turn value that tells how many ports to skip from the number of plurality of ports starting clockwise from the input port); and the switch transmitting the encapsulated packet via the second port (see col.11 line 6; transmitting the frame); wherein the path routing information is usable by a destination node for the packet to determine a backward path along which one or more packets may be transmitted back to an origin node for the encapsulated packet (see at least col.11 lines 28-36; the path specification field provides the device to route back packets to the origin from the terminus "reverse path").

For claim 19, Brocco et al discloses a method further comprising modifying the bit count value prior to transmitting the encapsulated packet via the second port (see at least col.13 lines 6-10; the incrementing of the turn count which is located in the header "Fig.5B").

For claim 20, Brocco et al discloses a method of path routing a packet from a source to a destination within a fabric having at least one switch, the method



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comprising: receiving an encapsulated packet at a first of a plurality of ports of the at least one switch (see at least col.12 lines 32-35; input port and the packet encapsulated with a header "Fig.5B"), wherein the encapsulated packet includes a header including a first turn value (see at least Fig.5B; header with turn values); selecting the first turn value using a received bit count value (see at least col.13 lines 4-6 and Figs. 5B and/or 5C; the switch uses the turn count to index the turn list "claimed turn pool" to get the indexed turn list entry (the claimed first turn value)); determining a second of the plurality of ports using the first turn value, an identifier for the first port, and the number of the plurality of ports (see at least col.11 lines 1-13; the use of turn value, the input port identifier and the number of plurality of ports to identify the output port since the output port is identified by the turn value that tells how many ports to skip from the number of plurality of ports starting clockwise from the input port); and transmitting the encapsulated packet from the at least one switch via the second port (see col.11 line 6; transmitting the frame); wherein routing information within the transmitted encapsulated packet is translatable by the destination to determine reverse path routing information that is usable to route one or more packets back to the source from the destination (see at least col.11 lines 28-36; the path specification field provides the device to route back packets to the origin from the terminus "reverse path").

For claim 21, Brocco et al discloses a method wherein the header further comprises the bit count value (see Fig.5B; turn count).

For claim 22, Brocco et al discloses a method, further comprising modifying the header prior to transmitting the packet via the second port (see at least col.12 lines 1-4

and/or col.13 lines 6-10; the incrementing of the turn count which is located in the header "Fig.5B").

For claim 24, Brocco et al discloses a method, wherein the fabric comprises a plurality of switches, and the method further comprises repeating the receiving, the determining, and the transmitting at various ones of the plurality of switches with corresponding ones of a plurality of turn values until the packet reaches the destination, wherein the plurality of turn values includes the first turn value, and wherein the plurality of turn values are located in the header (see at least Fig.1a; plurality of switches and see at least col.12 lines 1-4 and/or col.11 lines 30-36 and/or col.13 lines 2-12; there can be a lot of switches between the origin and terminus and see Figs.5b and/or 5C; turn list that includes a plurality of turn values are in the header).

For claim 25, Brocco et al discloses a method, wherein the routing information in the transmitted encapsulated packet further comprises a turn pool including the plurality of turn values (see Figs.5b and/or 5C; turn list that includes a plurality of turn values are in the header), and wherein the destination is configured to use the turn pool and the bit count value of the packet to create a second header and encapsulate the second header within a second packet to be routed from the destination to the source (see at least col.11 lines 28-36; the path specification field provides the device to route back packets to the origin from the terminus "reverse path" because the path can be inverted and reversed and see at least col.13 lines 6-10; the incrementing of the turn count prior to transmission which is located in the header "Fig.5B").

For claim 27, Brocco et al discloses the apparatus, wherein the path routing information including a plurality of turn values that includes the first turn value (see Figs.5b and/or 5C; turn list that includes a plurality of turn values are in the header), wherein each of the plurality of turn values corresponds to a respective network device within a path for the packet (see Fig.3B), and wherein a given one of the respective network devices in the path that receives the packet on a corresponding input port is configured to use the bit count value to select one of the plurality of turn values as a current turn value (see at least col.13 lines 4-6 and Figs. 5B and/or 5C; the switch uses the turn count to index the turn list “claimed turn pool” to get the indexed turn list entry (the claimed current turn value)), and wherein the given network device is further configured to transmit the packet on an output port of the given network device, wherein the output port is specified by the current turn value, the corresponding input port of the given network device, and the number of ports of the given network device (see at least col.11 lines 1-13; the use of turn value, the input port identifier and the number of plurality of ports to identify the output port since the output port is identified by the turn value that tells how many ports to skip from the number of plurality of ports starting clockwise from the input port).

For claim 28, Brocco et al discloses a method, wherein the header includes a turn pool including a plurality of turn values that includes the first turn value (see Figs.5b and/or 5C; turn list that includes a plurality of turn values are in the header).

For claim 29, Brocco et al discloses the apparatus, wherein the path routing information is translatable by: setting the bit count value to zero (see col.13 line 3; turn

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count is 0); and inverting and bit reversing a turn pool including the first turn value (see at least col.11 lines 28-36; the path specification field provides the device to route back packets to the origin from the terminus "reverse path" because the path (the header that contains turn list (claimed turn pool) and which includes all the turn values) can be inverted and reversed to send the frames back to the origin).

For claim 30, Brocco et al discloses a method, wherein the switch is coupled to the origin node (see at least col.11 lines 28-36 and/or col.12 lines 1-7; the switch is an intermediate node between the origin node and the destination node; thus, the switch must be coupled to both the origin node and the destination node to relay the frames).

For claim 31, Brocco et al discloses a method, wherein the switch is coupled to the destination node (see at least col.11 lines 28-36 and/or col.12 lines 1-7; the switch is an intermediate node between the origin node and the destination node; thus, the switch must be coupled to both the origin node and the destination node to relay the frames).

### ***Allowable Subject Matter***

6. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1, 2, 4, 13, 15, 17-22, 24-25 and 27-31 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

**8. Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HICHAM B. FOUAD whose telephone number is (571)270-1463. The examiner can normally be reached on Monday - Friday 10-6 EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj, Kumar can be reached on 571-272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. B. F./

Examiner, Art Unit 2467

/Pankaj Kumar/

Supervisory Patent Examiner, Art Unit 2467